

REMARKS

The Examiner is thanked for the comments in the Office Action (OA). They have helped considerably in understanding the rationale therein and in drafting this Response thereto.

Item 1 (§ 103 rejection of claims 1-4, 7-10, 13-16, and 19-20):

Applicant respectfully requests reconsideration of the rejection of previously amended claim 1 as being unpatentable over Breese in view of Ron and Farley. Claim 1 recites ascertaining an emotion in a voice by utilizing statistics. Further included is the step of receiving input from a user. The input from the user includes a user-determined emotion. In addition, the user-determined emotion is compared with the emotion selected from the database. When the selected emotion is outputted, a determination is made as to whether the user-determined emotion matches the emotion selected from the database. Accordingly, a prize is awarded to the user if the user-determined emotion matches the selected emotion from the database.

Breese does not teach comparing the user-determined emotion with the emotion selected from the database. In addition, Breese does not teach awarding a prize to a user if the user-determined emotion matches the selected emotion from the database. Nowhere in Breese or any of the prior art references uncovered by the Examiner is it taught or suggested that a user-determined emotion be compared to the selected emotion from the database. Nor is the feature of awarding a prize to the user if the user-determined emotion matches the selected emotion from the database. By this feature, the user can compete against another user or a computer to assist the user in recognizing emotion. Nowhere is there taught or reasonably suggested such a combination of features and components for fulfilling the foregoing objective.

Claims 7 and 13 contain similar limitations as claim 1 and are therefore believed allowable over the references of record for the same reasons set forth above with respect to claim 1. Claims 2-6, 8-12 and 14-18 depend from claims 1, 7, and 13 respectively, and therefore include the limitations thereof and are believed to be allowable over the references of record. In

addition, claims 19 and 20 depend from claim 1. Thus, claims 19 and 20 are believed to be allowable over the references of record.

It is contended that Ron

discloses a method for effecting regulation of a subject's emotional state which can be implemented in either a training or game scenario in which the system receives a voice signal, extracts features from the signal, determines the user's emotions and outputs the detected emotion to the user.

It is further contended that Ron teaches "that the user is prompted to provide a specific emotion in response to the system and the user's response is compared to the emotional state presented by the computer and that the user wins or scores when their emotion matches the expected emotion presented by the computer." Respectfully, this is error.

As a preliminary matter, Ron, in its entirety, clearly teaches away from Applicant's invention. As noted by the Examiner, Ron teaches "a game or competition scenario...for the purpose of helping users achieve a more relaxed emotional state and/or assist in the therapeutic training of individuals who have difficulty expressing emotions in speech." Applicant's invention, however, teaches users to recognize emotion in speech, not how to express emotion in speech. Applicant's invention is directed towards utilizing recognition of emotions in speech for business purposes. Note the instant specification starting on page 17. Ron teaches a therapeutic tool to assist individuals in expressing emotion, while Applicant's invention teaches a business tool that teaches a user how to recognize emotions in speech. In conclusion, Ron is an improper reference because it has not been considered as a whole and fails to suggest the desirability and the obviousness of making the combination.

As a further preliminary matter, the Examiner has not addressed the previously amended elements of claim 1 individually. Nor has the Examiner addressed the rejections of claims 19 and 20 individually. Accordingly, Applicant's responses are addressed to the element or claim the Applicant reasonably believes the Examiner was directing the rejection towards.

It is contended that Ron teaches that the user is prompted to provide a specific emotion in response to the system and the user's response is compared to the emotional state presented by

the computer and that the user wins or scores when their emotion matches the expected emotion presented by the computer. Applicant believes that the Examiner meant for this contention to apply to elements (f) through (i) of claim 1. Respectfully, this contention is error.

Ron teaches asking “a subject to assume a desired emotional state such as being relaxed or excited.” The player must change speech characteristics to reflect the desired emotional state. The player may also be asked to change speech characteristics to truly reflect the nature of an image presented to the player. Applicant’s invention teaches “receiving an input from the user, wherein the input includes a user-determined emotion.” Ron teaches away from Applicant’s invention. Ron teaches a game, the goal of which is to “[enhance] the ability of the player to exercise control over his emotional expression in speech.” Input of a user-determined emotion is not received in Ron. Rather, the user is expected to conform speech characteristics. This teaches against Applicant’s invention, which discloses a game where the user competes by offering an emotion associated with a voice signal. The user in the Applicant’s invention is not expected to change speech characteristics. The user in the Applicant’s invention is competing for detecting emotion, not expressing emotion or conforming speech characteristics. Thus, Ron is inapposite for comparison to Applicant’s invention.

Furthermore, since Ron does not teach or suggest this element, the combination is not proper. Thus, claim 1 is believed to be allowable over the cited references.

It is further contended that Ron “discloses that the game can be played in a racing scenario in which the user competes against the computer and that the system can be used with two subjects. Applicant believes that this contention was meant to apply to claim 20. Respectfully, the rejection based on this contention is error.

Ron discloses a racing game in which the speed of one subject is determined by the computer while the speed of the other subject is determined by the emotion the subject is asked to express in his voice. Ron does not disclose a game where the user competes against the computer for the correct determined emotion. Ron discloses correctly expressing an emotion. Applicant’s invention discloses detecting emotion in a voice signal. Ron teaches expressing your

emotion and voice signal to match the emotion in the game, while Applicant's invention teaches that a user listens to a voice signal and determines an emotion therefrom. The user then inputs this user-determined emotion hoping to match it with the emotion selected from the database. Applicant's invention assists the user in listening to a voice signal and detecting an emotion from the voice signal. Thus, Ron, being essentially a speech tool, neither discloses nor suggests detecting emotion. Therefore, the combination is improper and claim 1 is believed to be allowable.

It is also contended that Ron teaches "that the system can be used to help users achieve a more relaxed state and that success in training also has therapeutic values to teach patients who have difficulty expressing emotion in their conversation how to change their speech characteristics." Applicant believes that the Examiner meant for this contention to apply to claim 19. Respectfully, the rejection based on this contention is error.

Claim 19 recites the method of claim 1, "wherein the user is diagnosed as being autistic." Applicant's invention asks a subject "to assume a more relaxed state, resulting in his speech profile having a lower pitch, a lower rate, a lower vocal intensity and a lower derived speech measure." Applicant's invention teaches the user how to detect emotion in a voice signal. Applicant's invention therefore is not to "teach patients who have difficulty in expressing emotion in their conversation how to change their speech characteristics." Autistics generally are assigned to tasks that don't require good interpersonal skills. Applicant's invention is a practical application for autistics to learn how to detect emotion in others' speech, not to express emotion in their own. See "Autism and the employer", www2.computerworld.com/home/online9697.nsf/All/970414anthes3.com. A trait common to autistics is that they can't read facial expressions or body language or social nuances well. Thus, detecting emotion in speech may be quite useful in business. Thus, Ron does not teach nor suggest an autistic user. Therefore, the combination is not proper.

It is also contended that while Ron does not teach awarding a prize, Farley teaches "a psychotherapeutic testing game in which a subject is presented with an emotional scenario and is expected to identify and verbalize a wide range of feelings and to encourage expression in a

socially acceptable fashion.” Farley further teaches “that tokens or chips are awarded to user and that the chips can be exchanged for prizes from a reward box.” Therefore, it is contended that

it would have been obvious to one of ordinary skill at the time of the invention to provide the user with a reward or prize for correctly matching the selected emotion, for the purpose of providing external incentive to motivate the user to participate and provide the correct emotion, as taught by Farley.

Respectfully, this is error.

Farley teaches giving a “child an opportunity for identification and verbalization of a wide range of feelings allowing for the release of tension, unconscious conflicts, and to thereby encourage expression in a socially acceptable fashion.” Applicant’s invention teaches assisting the user in recognizing emotion, not expressing emotion. Furthermore, Farley fails to award a prize based on a match. Element (j) of claim 1 specifically recites “awarding a prize to the user if the user-determined emotion matches the selected emotion from the database.” In fact, the prize awarded in Farley is not even based on a correct answer, but rather to a response that elaborates on a card. There are a “maximum amount of points to be gained for a complete response” (column 6, lines 31-32), and the person with the highest point total wins the game. Further, Farley fails to teach a user-determined emotion based on a voice signal. Applicant’s invention requires the user to listen and relate an emotion based at least partially on their listening skills. Farley, however, requires the player to look at a card and tell a story based thereon. Farley, therefore, teaches away from Applicant’s invention since it teaches awarding a prize based on expression, while Applicant’s invention teaches awarding a prize based on a correct match. Therefore, the combination is not proper and claim 1 is believed to be allowable.

Furthermore, the rejections based on § 103 as a whole are error. A *prima facie* case for obviousness has not been made. The rejections fail to point out any teaching or suggestion, appearing within the references themselves, which motivate the combination.

CONCLUSION

In view of the foregoing, Applicant respectfully requests reexamination of claims 1-20. and submits that these claims are in condition for allowance. Accordingly, a notice of allowance is respectfully requested.

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Respectfully Submitted,



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